What is claimed is

1. A phosphoramidite compound of formula (I), (II), (III), (IV) or (V):

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$$RO$$
 RO
 OR
 OR
 (IV)

wherein:

R is a dimethoxytrityl (DMTr), levulinyl (Lev) or tert-butyldimethylsilyl (TBDMS) group.

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- 2. The compound of claim 1, which is selected from the group consisting of:
- (S)-(+)-1-O-DMTr-3-O-(2-cyanoethyl)-N,N-diisopropyl-phosphoramidite)-1,3-butanediol;

(R)-(-)-1-O-DMTr-3-O-(2-cyanoethyl)-N,N-diisopropyl-phosphoramidite)-1,3-butanediol;

O-((2-cyanoethyl)-*N*,*N*-diisopropyl-phosphoramidite)-benzylglycolate;

O-DMTr-((2-cyanoethyl)-*N*,*N*-diisopropyl-phosphoramidite)-lithocholic alcohol;

O-tri-DMTr-((2-cyanoethyl)-N,N-diisopropyl-phosphoramidite)-pentaerithritol;

O-DMTr-O-di-Lev-O-((2-cyanoethyl)-N,N-diisopropyl-phosphoramidite)-pentaerithritol; and

O-DMTr-O-Lev-O-TBDMS-((2-cyanoethyl)-*N*,*N*-diisopropyl-phosphoramidite)-pentaerithritol.